WHAT IS CLAIMED IS:

1. A method of manufacturing a magnetic recording medium, comprising:

(a) providing a non-magnetic substrate for a magnetic medium, said substrate including at least one major surface having a contact start/stop (CSS) or landing zone and a data zone; and

(b) forming a pattern of recesses in said substrate surface in said CSS or landing zone by embossing utilizing a stamper having a surface including a negative image pattern of said pattern of recesses.

2. The method according to claim 1, wherein:

step (a) comprises providing an annular disk-shaped substrate wherein said CSS or landing zone comprises an annularly-shaped zone adjacent an inner or outer diameter of said disk and said data zone comprises an annularly-shaped zone radially adjacent said CSS or landing zone.

3. The method according to claim 1, wherein:

step (b) comprises forming a rectangularly- or sinusoidally-shaped pattern of recesses.

4. The method according to claim 3, wherein:

step (b) comprises forming a rectangularly-shaped pattern of recesses, wherein each of the dimensions of the rectangles of said pattern is in the range of from about 0.1 to about 10 μm and the depth of each of the recesses is in the range of from about 10 to about 200 Å.

5. The method according to claim 3, wherein:

step (b) comprises forming a sinusoidally-shaped pattern of recesses, wherein the peak-to-peak spacings of adjacent recesses is in the range of from about 0.1 to about 10 μm and the depth of each of the recesses is in the range of from 10 to about 200 Å.

6. The method according to claim 1, wherein:

step (a) comprises providing a substrate comprised of a material selected from the group consisting of Al, Al/NiP, Al-based alloys, other metals, other metal alloys, polymers,

and polymer-based materials, or a high modulus, hard-surfaced substrate selected from the group consisting of glass, ceramics, and glass-ceramics.

7. The method according to claim 6, wherein:

step (a) comprises providing a glass, ceramics, or glass-ceramics substrate, wherein step (a) further comprises forming a sol-gel layer on at least said substrate surface in said CSS or landing zone, said sol-gel layer having a surface which is softer than said substrate surface; and

step (b) comprises embossing said pattern of recesses in said surface of said sol-gel layer, wherein step (b) further comprises converting the embossed sol-gel layer to a glass or glass-like layer including said pattern of recesses in said surface thereof.

8. The method according to claim 7, wherein:

step (a) comprises forming a sol-gel layer comprising a porous layer of SiO_2 containing water and at least one solvent in the pores thereof; and

step (b) comprises converting said sol-gel layer to said glass or glass-like layer by sintering at a temperature of from about 300 to above about 1000°C.

9. The method according to claim 1, wherein:

step (b) comprises simultaneously forming said pattern of recesses in said substrate surface in said CSS or landing zone and forming a servo pattern in said substrate surface in said data zone; and

step (b) comprises embossing utilizing a stamper having a surface including negative image patterns of said pattern of recesses and said servo pattern.

10. The method according to claim 1, further comprising the step of:

(c) forming a stack of thin film layers over at least said substrate surface in said data zone, said stack of layers including at least one ferromagnetic recording layer.

11. A magnetic recording medium, comprising:

a non-magnetic substrate including at least one major surface having a contact start/stop (CSS) or landing zone and a data zone, said substrate surface in said CSS or landing zone comprising an embossed pattern of recesses.

12. The magnetic recording medium as in claim 11, wherein:

said substrate is annular disk-shaped, said CSS or landing zone comprises an annularly-shaped zone adjacent an inner or outer diameter of said disk, and said data zone comprises an annularly-shaped zone radially adjacent said CSS or landing zone.

13. The magnetic recording medium as in claim 11, wherein:

said pattern of recesses comprises a plurality of rectangularly-shaped recesses, wherein each of the dimensions of the rectangles of said pattern is in the range of from about 0.1 to about 10 μm and the depth of each of the recesses is in the range of from about 10 to about 200 Å.

14. The magnetic recording medium as in claim 11, wherein:

said pattern of recesses comprises a plurality of sinusoidally-shaped recesses, wherein the peak-to-peak spacings of adjacent recesses is in the range of from about 0.1 to about 10 μm and the depth of each of the recesses is in the range of from 10 to about 200 Å.

15. The magnetic recording medium as in claim 11, wherein:

said substrate is comprised of a material selected from the group consisting of Al, Al/NiP, Al-based alloys, other metals, other metal alloys, polymers, and polymer-based materials, or a high modulus, hard-surfaced substrate selected from the group consisting of glass, ceramics, and glass-ceramics.

16. The magnetic recording medium as in claim ~~16~~ 15, wherein:

said substrate comprises glass, ceramics, and glass-ceramics and further includes a glass or glass-like layer on at least said substrate surface in said CSS or landing zone, said glass or glass-like layer being derived from a sol-gel layer and including a surface with said pattern of recesses formed therein.

17. The magnetic recording medium as in claim 11, wherein:

said substrate surface in said data zone comprises an embossed servo pattern.

18. The magnetic recording medium as in claim 11, comprising:

a stack of thin film layers formed over at least said substrate surface in said data zone, said stack of layers including at least one ferromagnetic recording layer.

19. A stamper for embossing at least one pattern of recesses in a surface of a substrate for a magnetic recording medium, said substrate surface including spaced-apart landing and data zones, said stamper comprising:

(a) a main body including a surface; and

(b) means for embossing a pattern of recesses in said landing zone of said substrate surface.

20. The stamper as in claim 19, further comprising:

(c) means for simultaneously embossing a servo pattern in said data zone of said substrate surface.